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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/053,318

01/18/2002

Joseph P. Hickey

KEN-015

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02/23/2006

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EXAMINER

JUNTIMA, NITTAYA

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

22

Office Action Summary	Application No. 10/053,318	Applicant(s) HICKEY, JOSEPH P.	
	Examiner Nittaya Juntima	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 13-15 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 4-5, 9-12, 16-17 and 21-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/15/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. [1] as follows:

i) Copendency between the current application and the prior application is required.

Since the applications are not copending, the benefit claim to the prior-filed nonprovisional application is improper. Applicant is required to delete the reference to the prior-filed application from the first sentence(s) of the specification, or the application data sheet, depending on where the reference was originally submitted, unless applicant can establish copendency between the applications.

ii) Even copendency between the applications can be established, the disclosure of the prior-filed application, Application No. 60/276,630, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. There is a lack of support or enablement in the Application 60/276,630 for determining jitter buffer size which is the scope of this application. Accordingly, claims 1-24 are not entitled to the benefit of the prior application.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See

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MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: a new oath or declaration without claiming for the benefit of a prior-filed application, Application No. 60/276,630, must be submitted.

Drawings

3. The drawings are objected to because in Fig. 1, items 1 and 10 should be labeled as “an RTP packet device” and “an apparatus,” respectively.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

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4. Claims 1, 6, 13, 18, 21, and 22 are objected to because of the following informalities:

- in claims 1, 6, 13, and 18, line 3, "RTP" should be spelled out as "Real-time

Transport Protocol" to avoid any misinterpretation;

- in claim 21, line 2, "averages" should be changed to "the average network jitter;"

- in claim 22, line 3, "is" should be changed to "if."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 7, 14, and 19 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the expected local arrival time of the next packet which is defined as *the local arrival time of the last packet* plus the RTP timestamp difference (page 14, lines 11-13, 18-23), does not reasonably provide enablement for the claimed expected arrival time which is defined as *the difference between the local clock and the time stamp of the present packet* plus the timestamp difference of the last two packets (or in other words, the delay of the present packet plus the timestamp difference). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. One skilled in the art would not be able to correlate the relationship of the local arrival time of the last packet as taught in the

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specification with the difference between the local clock and the time stamp of the present packet as recited in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 6, 8, 13, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohlsson et al. ("Ohlsson") (USPN 6,452,950 B1) in view of Raisanen (USPN 6,977,942 B2).

Regarding claims 1 and 13, Ohlsson teaches a method for determining jitter buffer size, comprising:

Determining the expected arrival time for the next packet (the expected arrival time Ta_n of the next packet where $n = 2$ is determined, col. 8, lines 11-26).

c) Determining network jitter by comparing the expected arrival time for the next packet with the actual time for the next packet (an arrival time variance v for packet n where $n = 2$ is determined, col. 8, lines 31-36).

d) Calculating jitter buffer size based on the determined network jitter (the size of the jitter buffer is determined from packet's variance v , col. 8, lines 49-52).

However, Ohlsson fails to explicitly teach a) comparing the RTO timestamps of two consecutive packets and b) basing the expected arrival time for the next packet on the comparison.

Raisanen teaches that when using RTP protocol with packet with RTP timestamp, the expected arrival time for the next packet (the theoretic time of arrival of the packet that is object of calculation, i.e. the second packet) can be calculated by comparing the time stamps of the two consecutive packets (the time stamps of the first data packet and the second packet). See col. 4, lines 31-36.

Given the teaching of Raisanen, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Ohlsson to include comparing the RTO timestamps of two consecutive packets and basing the expected arrival time for the next packet on the comparison as recited in the claim. The suggestion/motivation to do so would have been to utilize the timestamps to calculate the expected arrival time of a packet when RTP protocol is used as taught by Raisanen (col. 4, lines 31-36).

Regarding claims 3 and 15, Although Ohlsson further teaches that a number of network jitter values (variances) for the respective packets are determined and stored in the variance buffer for calculation of the size of the jitter buffer (col. 8, lines 37-52), the combined teaching of Ohlsson and Raisanen fails to teach repeating steps a) through c), determining the average network jitter, and recalculating jitter buffer size based on the determined average network jitter.

However, an official notice is taken that the concept and the advantages of taking an average value to calculate another value are well known and expected in the art. It would have been obvious to have included repeating steps a) through c), determining the average network jitter, and recalculating jitter buffer size based on the determined average network jitter in the combined teaching of Ohlsson and Raisanen as the average network jitter, which is calculated

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over a number of packets, would provide a better and more accurate representation of the network jitter for use in calculation of jitter buffer size than just a single network jitter value.

Claim 6 is method claim similar to the method claim 1 and is rejected under the same reason set forth in the rejection of claim 1 with an additional step of e) adjusting the size of the jitter buffer to the calculated jitter buffer size (Ohlsson, col. 12, lines 23-25).

Claim 8 is a method claim similar to the method claim 3 and is rejected under the same reason set forth in the rejection of claim 1 with an additional step of i) readjusting the size of the jitter buffer to the recalculated jitter buffer size. Although Ohlsson fails to explicitly teach step i), Ohlsson teaches updating the jitter buffer size by adjusting the size of the jitter buffer to the calculated jitter buffer size (col. 12, lines 23-25). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Ohlsson and Raisanen to include readjusting the size of the jitter buffer to the recalculated jitter buffer size such that the jitter buffer size would be updated to a new value.

Claims 18 and 20 are apparatus claims corresponding to method claims 6 and 20, respectively, and are rejected under the same reason set forth in the rejection of claims 6 and 20, respectively.

Allowable Subject Matter

8. Claims 4-5, 9-12, 16-17, and 21-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 6,683,889 B1, disclosing apparatus and method for adaptive jitter buffers (Fig. 6 and col. 5, lines 23-41).
- USPN 6,917,589 B2, disclosing a method for calculation of the next arrival time of the next packet based on arrival timestamps (Fig. 3 and col. 5, lines 22-56).
- US 2004/0233931, disclosing method for calculation of jitter buffer depth using an arrival time interval of each packet pair (Fig. 1 and paragraphs 0036-0037).
- USPN 5,682, 384, disclosing a method for calculating a network jitter (Fig. 2 and col. 5, lines 19-46).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

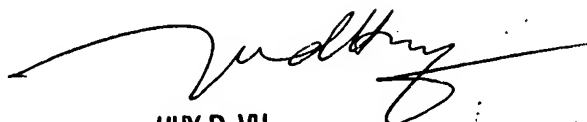
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
February 15, 2006.

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